

VIRGINIA WILDLIFE

Commonwealth of Virginia Charles S. Robb, Governor Commission of Game and Inland Fisheries

Commissioners

Frank T. Sutton, III, Richmond Chairman
Richard T. Spain, Waverly
Vice-chairman
J. D. Bowie, Bristol
W. Frank Chapman, Jr., Salem
Glenn R. Croshaw, Virginia Beach
Frank F. Everest, Jr., Alexandria
David Fahnestock, Winchester
Russell S. Moon, Kenbridge
Charles R. Taylor, Reston
Latane Trice, Walkerton

Officers

Richard H. Cross, Jr., Executive Director John P. Randolph, Assistant Executive Director Harry L. Gillam, Chief, Education Larry Hart, Chief, Lands and Engineering Jack M. Hoffman, Chief, Fish John H. McLaughlin, Chief, Law Enforcement Sam J. Putt, Chief, Administrative Services Jack W. Raybourne, Chief, Game

Magazine Staff

Harry L. Gillam, Editor-in-Chief Sarah R. Bartenstein, Managing Editor Mel White, Senior Editor Robin Sharpe Schroeder, Art Director Carl C. Knuth, Staff Artist and Photographer Francis N. Satterlee, Staff Writer Carol Condrey, Composition Jack Cox, Circulation

Color separations by Lanman Dominion, Richmond
Printing by the William Bard Proce

Printing by the William Byrd Press, Richmond

Virginia Wildlife (ISSN 0042 6792) is published monthly by the Education Division of the Virginia Commission of Game and Inland Fisheries, Box 11104, 4010 West Broad Street, Richmond, Virginia 23230-1104, 804/257-1449 (subscription inquiries); 804/257-1146 (editorial offices). Subscription rates: one year, \$5, three years, \$12.50. Submission guidelines for free lance work available upon request. The Commission accepts no responsibility for unsolicited manuscripts, photographs, or artwork. Permission to reprint material from Virginia Wildlife is granted provided credit is given; clearance must also be obtained from the contributing writer and/or artist. Second class postage paid at Richmond, Virginia.

Observations, conclusions, and opinions expressed in *Virginia Wildlife* are those of the author and do not necessarily reflect those of the members or staff of the Commission of Game and Inland Fisheries.

Dedicated to the Conservation of Virginia's Wildlife and Related Natural Resources Volume 44, Number 12 December 1983

Features

- 4 Hunting for the Perfect Gift by Jennifer Hensley Wondering what to give the sportsman on your holiday gift list? Here are some ideas
- 7 "Brush Up" On Wildlife Habitat by Robert Ellis Don't burn that brush pile—let it be a haven for wildlife
- 9 Winter Trout Savvy by Harry W. Murray
 How to land a trout in time for Christmas breakfast
- 13 Late Season Dove by Curtis Badger
 Doves in December? Try spending a winter day in a soybean field instead of a
 duck blind
- 17 Snowscapes by Bill Portlock
 A photo essay
- 24 Bird of the Month by John W. Taylor The Saw-Whet Owl
- 26 From Folk Art to Fine Art by Sue Swartwout The wildfowl carvings of Louis Kean, Jr.
- 32 Hypothermia: Cold-Blooded Killer by William Forgey and Jim Meuninck
 Don't let this threat mar your outdoor recreation
- 35 Index to Virginia Wildlife Volume 44, Numbers 1-12

Departments

- 3 Letters
- 21 Field Notes Tagging Wood Ducks
- 22 Personalities Marian Wooding
- 23 Growing Up Outdoors A Gift That Keeps on Giving
- 29 Outdoor Notebook
- 34 Non-Game Update The American Kestrel

Cover

Mourning doves by William Redd Taylor, Newport News. You may associate dove hunting with the warm days of early fall, but as Curtis Badger points out on page 13, December doves have their charms, as well.

Back cover: photo by Bill Portlock, Bowling Green. This photo and those on pages 17 through 20 portray a winter wonderland Portlock found in southwest Virginia.

STELS STELS

	I want a wild exp I prefer to get wi Name Address Address Ity City Citt subscription Cift subscription Cift subscription	□ I want a wild experience. Here's my five bucks. □ I prefer to get wild for three years. I enclose \$12.50. Name Address Sity □ New subscription □ Gift subscription. Please send an announcement to the recipient. □ Yes	StateZipCredit salesman number
	Gift subscription. P	Please send an announcement to the recipient. $\hfill\square$ Yes	oN 🗆
☐ Gift subscription. Please send an announcement to the recipient. ☐ Yes. ☐ No	J New subscription	☐ Renewal	Credit salesman number
J New subscription □ Renewal Credit salesman number J Gift subscription. Please send an announcement to the recipient. □ Yes □ No	ity		
State Zip	Address		
Address	Vame		
Name Address Sity New subscription Gift subscription. Please send an announcement to the recipient. Teste Zip Credit salesman number	☐ I prefer to get wi	ild for three years. I enclose \$12.50.	
□ I prefer to get wild for three years. I enclose \$12.50. Name Address Sity Isty Gift subscription. Please send an announcement to the recipient. In Yes In No. In No. In State In No. In Instruction In Instruction In Instruction In Instruction	J I want a wild ex	perience. Here's my five bucks.	

Letters

A Real Carp Recipe

First catch the carp. Fillet carp and remove all bones. Soak in salt water for 24 hours, then wash well and soak in plain water for another 24 hours. Cut all red meat from the sides of the carp. After this is done, dry the meat well, then cut and place in pint cans, press firmly in can until can is full. Add to each pint can of carp meat: one teaspoon salt and one teaspoon vinegar (no other liquid). Put in pressure cooker with water over top of can. Pressure cook for 90 minutes at 10 pounds of pressure. It is just as good as salmon. The soaking should be done in the refrigerator. I have tried this and I think it is good.

Simpson D. Powers Haysi

More on Gypsy Moths

Despite Mr. Quinn's observations (Letters, August 1983) about the use of Sevin (carbaryl), there is significant scientific evidence which indicates that carbaryl has failed to control gypsy moths. During the years 1963-73, when carbaryl was the insecticide of choice, the gypsy moth continued to expand its range. This failure is recognized by the U.S. Forest Service which states, in its annual Environmental Impact Statement, that the primary goal of its programs is to protect foliage rather than control gypsy moths. Although application of carbaryl kills many gypsy moth caterpillars it also interferes with natural control systems by killing insect predators and parasites. Often the effect of applying carbaryl is to prolong outbreaks.

Also carbaryl was tested by Industrial Bio-Test Laboratories (IBT) before EPA registered it as an approved insecticide. The recent indictment of the top researchers at IBT for falsifying there toxicological studies creates considerable doubt, once again, on the safety of

the use of carbaryl.

The U.S Department of Agriculture is conducting a 5-year pilot project in Maryland to evaluate integrated pest management as a means of accomplishing forest resource protection against the gypsy moth. It is hoped this project will maintain gypsy moth population levels below damage threshold without restoring to aerial spraying of broad spectrum insecticides like carbaryl.

Neal Fitzpatrick Audubon Naturalist Society

Intercepted Letter

Dear Mr. Knuth:

I always enjoy your drawings, pictures, and articles in *Virginia Wildlife*. Your article and picture on "The Killdeer" in the May 1983 issue was excellent.

I had seen and heard the killdeer in this area for years, but never knew much about it until this year.

Since my house is on Virginia Highway 11 on a lot which extends only about 200 feet between Highway 22 and Interstate 81 where the traffic is always very heavy, it never occurred to me that a killdeer would build along my driveway. However, about two feet from the driveway pavement, on May 27, I discovered the nest with two buff eggs, blotched with brown and lavender. The eggs were much larger than I thought a bird her size would lay. There was practically no nest, just a depression in the yard, some short grass, but no weeds or shrubbery around it to protect or hide it. I could sit on my front porch and see the nest.

By May 29, there were four eggs and soon the hen was setting. Cars and people were coming and going up my driveway often, and each time the hen would leave the nest and flutter and drag her outstretched wing, and call shrill "kill-dees." But soon she would be back on the nest.

I was surprised that she would build in such an open, busily travelled spot, and still wonder why some dog or cat did not destroy her eggs. I noticed that not even the arrogant starling bothered her.

I watched the nest closely every day. About 3 P.M. on June 24th, I noticed a lot of activity there, so I went and looked at the nest. I was very surprised to see that all four eggs had hatched and that the little birds were fully feathered, the very day they hatched. I watched eagerly. About 5:30 P.M., the mother bird was leading those tiny baby birds behind her across my lawn. One baby bird was having a difficult time keeping up with the others, and I believe he must have died.

Early the next morning, the parent birds were calling the young ones. Evidently they lead them out of the yard into a grassy lot nearby for protection for a few weeks. Now, about four weeks later, the three young birds, and the parents are back on my lawn. They stay here constantly and how we enjoy seeing and hearing them every night and day.

Your article certainly described them perfectly.

Today, in the August Wildlife, your article and picture of the "Wood Peewee" was very, very good. I hear its song but do not see the birds.

The first page I turn to when I get my Wildlife is the back page for the "Bird of The Month," or any of your articles. Please continue to write the wonderful articles.

Maxine Davis Atkins

Rest assured that the editorial staff will continue to publish as much of Spike Knuth's work as he can produce!—
Managing Editor

About the -Authors-

Jennifer Hensley is active in the Virgina hunter education program; her article on safety and hunter ethics appeared in the September 1982 issue of Virginia Wildlife. Ms. Hensley lives in Grottoes. Robert Ellis is an extension agent living in Grundy. He holds a master's degree in wildlife management from Virginia Tech. Harry W. Murray lives in Edinburg and teaches classes on fly fishing; he has written frequently for Virginia Wildlife on trout and smallmouth bass tactics for the fly fisherman. Curtis Badger is a freelance writer living on the Eastern Shore; articles published in Virginia Wildlife include "The Subtle Thrills of Flatwater Canoeing" (July 1983) and "Nathan Cobb's Island" (August 1983). Bill Portlock's photographs have accompanied many different articles in Virginia Wildlife. The Bowling Green resident works for the Chesapeake Bay Foundation out of Richmond and collaborated on an article on the Bay which appeared in our July issue. Fairfax Settle is a game biologist with the Commission's game division. Settle works out of Tappahannock. Sue Swartwout is a freelance writer living in Richmond and studying journalism at Virginia Commonwealth University. Her introduction to the art of decov carving came through her work with Cudahy's, a Richmond art gallery which devotes its third floor to wildlife art. Dr. William Forgey and Jim Meuninck collaborate on columns concerning various aspects of sports medicine and first aid.



HUNTING For The Perfect Gift

Wondering what to give the sportsman (or woman) on your list? Here are some ideas.

ast Christmas, a hunting buddy of ours asked his wife for a new pair of Himalayan I hunting pants. But she was tired of buying hunting pants—she wanted to give him something "special." So she bought him a beautiful winter coat.

This fellow is not known for his tact, nor for hiding his feelings. When he opened the box and saw the coat, he must have uttered a few ill-chosen words, or otherwise failed to exhibit

the desired response.

His wife didn't speak to him for the rest of the day; early the next morning, she took the coat back to the store and got a refund. She gave the money to her husband and told him to buy his own gift. Guess what he bought? The hunting pants, of course, as well as a West Virginia hunting license so he could hunt grouse there after Virginia's season closed.

That's probably not the way it would happen in most households; the recipient usually smiles politely and offers half-hearted thanks for the gift, which is then placed in a drawer or closet someplace with last year's sweaters and socks, never to see the light of day

Is either scenario really the way you want Christmas morning to go this year? With careful thought and a little imagination, your gift can be one that is truly appreciated by its recipient, and it can communicate what all gifts are meant to say: how much you care about that person.

Perhaps one reason that nonhunters and fishermen grow weary of giving hunting- and fishing-related gifts is that they run out of ideas and get tired of giving the same thing year after year. So here are some suggestions for things the sportsman (or

woman) might like to find under the tree on Christmas morning. Check your local sporting goods store, outdoor outfitter, army-navy surplus store, or outdoor equipment catalog or catalog store. Shop around and compare prices and quality—both can vary widely from store to store. A listing follows this article to give you a very general price range for some of these items, but they are only guidelines—you may find a lower (or higher) price at your local dealer's.

(Photos, opposite page) Gifts for the sportsman come in a wide variety from inexpensive stocking stuffers to more elaborate (and pricey) items. Here are some things you might consider: an article of camouflage clothing such as this cap (top left) would be appreciated by a turkey hunter or bowhunter; if you aren't comfortable selecting equipment or clothing, how about a mug-or a pair of of them—bearing a sporting theme or motif (top right). A vest (middle left) would be a nice gift for an angler or a hunter. (Center photo) A decoy would be enjoyed by everyone in the house, not just the duck hunter; also for the duck hunter, how about a duck call for his stocking? And a book on his (or her) favorite sport would extend a hunter or angler's enjoyment beyond the season closing. (Middle right) Lures make excellent stocking stuffers. (Bottom left) Any blaze orange item, such as this cap, is a gift that shows how much you care. Another great stocking stuffer for any outdoorsy person (bottom right) is a flashlight.

For the bowhunter or turkey hunter, the object is to blend in with his surroundings; so camouflage face masks, gloves, and even "camo" makeup can make the job easier. I am impressed with the new styles of facemasks: one has eyeglass frames installed while another is attached to a camo hat. The way I lose face masks, I could get these every year and not

have too many; maybe one attached to my hat would be easier to keep up with. Another camouflage item is a tee shirt—long-sleeved or short. On the lighter side, a pair of camo suspenders might come in handy.

Look for items that are reversible camouflage on one side, blaze orange on the other—such as a tobbaggan, brimmed hunting hat or vest.

A gift of blaze orange always conveys how much you care about the hunter in your family. For the gun hunter, this could be a vest. How about a "Don't Shoot" band for the archer or turkey hunter? The band can be wrapped around a tree to warn other hunters of your presence, yet it does not spook game. Or you can wear it as a sash from shoulder to waist while traveling to your stand.

ld stand-bys for the gun hunter are a pair of gun racks for a pick-up truck and hand warmers. A fairly new type of hand warmer, called Handi-Heat, is disposable. When all its "warm" is gone, just toss it in the trash can or litter bag.

The Big Buck Tow-All and the Big Buck Field Dressing Kit make a nice combination for a deer hunter (especially a successful one). If your local dealer doesn't carry this particular item, he may be able to show you

something comparable.

For deer hunters, cover-up scents would make nice stocking stuffers. There are many to experiment with, including Skunkscreen or Davy Brachens Buck Lure; ask a sporting goods dealer (or another deer hunter) for

Is there a muzzleloader on your list? Take a look at the assortment of black powder flasks that are on the market. They may not always be practical to

With careful thought and a little imagination, your gift can be one that is truly appreciated and communicates how much you care.

use, but they sure look nice lying on the mantle beneath your Hawkens. On the practical side, a breech plug removal wrench is a handy little tool—while it is not often needed, when it is, nothing else will do the job. Cleaning accessories are always welcome, from cleaning rods to solvent.

A nipple capper is a handy gadget to have in the field, as is a powder measure and a leather muzzleloading sling

and a set of swivels.

You may not think of fishermen at Christmas, but there are dozens of inexpensive gadgets that "kids" of any age will love picking out and receiving in the fishing "line," from inexpensive floats to a fishing vest and tackleboxes. A rainsuit, to prevent wet weather from ruining his day, would be appreciated.

Stocking stuffers include a roll of line, a scale/ruler combination, a variety of plugs, worms and lures, fisherman's pliers and scissors. For the best gift under \$10.00, I vote for the little light that snaps to the brim of a hat, leaving the hands free. It would be great for night fishing, or for getting your gear out of the car and into your boat in the wee hours of the morning.

For the younger fisherman, I ran across an outfit made by Zebco called "Just Like Dad's"—what youngster would not be pleased with his (or her) own tackle box loaded down with colorful floats and worms?

Many of these gifts are "cross-over" gifts that could be used for any number of sports. Anything blaze orange, for example, is useful not only to a hunter but others who are outdoors during hunting season.

A snake-bite kit would make a nice gift for anyone who is outdoors during the time of year when an encounter with a snake a possibility. Naturally, hikers, campers and anglers fall into

this category, but don't forget bowhunters and spring gobbler afficianados: the weather can be warm during their seasons, and often is.

For the sportsman—hunter, hiker, angler, photographer— who likes to spend the entire day in the mountains, and sometimes a night or two, two inexpensive yet useful stocking stuffers are a tiny pocket can opener and any one of a wide variety of flashlights (throw in some batteries, too). Or try the Instantly Safe Purifier and Filter that works like a straw to purify water.

A first-aid kit and a book on survival would be appreciated by anyone who

spends time outdoors.

Perhaps you are completely out of your element in a sporting goods store and would prefer to leave it up to the hunter or angler himself to choose his equipment. How about a gift certificate from his favorite sporting goods store? Or you could give a subscription to any of the many sporting magazines (we hope you'll consider Virginia Wildlife among them). Or browse through a good bookstore for a book on the favorite sport of your favorite sportsman. These are gifts that will be especially appreciated during the off-season. Other "seasonless" gifts for the sportsman include mugs, pillows or other items with a sporting theme; use your imagination here—you may be able to craft something yourself. Or how about a wildlife art print? A gift that can be practical or decorative is a decoy. Decoys are available in a wide range of species of gamebirds and waterfowl, and in an equally wide price

I hope this has made your Christmas shopping a little easier this year, and for years to come. (If you want to be on the receiving end of a sporting gift, give this article to the Santa Claus in your house.) Whether you're giving a sporting gift, or hope to receive one, I wish you a happy holiday. □

ere's a very brief sampling of the price ranges of some of the gifts mentioned in this article. Naturally, these will vary from brand to brand and from dealer to dealer, but it may help you in planning what to look for when you go shopping.

\$5.00 or under

broadhead wrench
flashlight (prices begin low, but
cover a wide range depending
on the model)
camouflage tee shirt
"Don't Shoot" band
fishing line
lures, flies, worms, etc.
camouflage or blaze orange cap
mug
Virginia Wildlife (one-year

subscription) cover up scents hand warmer can opener

\$5.00 - \$10.00

blaze orange vest scale/ruler hunting bag or tote first aid kit snake bite kit camouflage suspenders gun rack pillow

\$10.00 - \$25.00

rain suit tackle box scissors shooter's or angler's vest hard cover books

Over \$25.00

decoys wildlife prints



Illustration by Dick Bernard

"Brush Up" On Wildlife Habitat

Don't burn that brush pile—let it be a haven for wildlife in a world where man removes more and more habitat every day.

by Robert Ellis

ith the continued expansion of the human race, wildlife habitats are disappearing at an alarming rate. We clear woodlots for modern homes and spacious yards. We pile up the resulting brush and burn it. Then we, the new tenants, do little if anything to provide wildlife with their former natural surroundings.

As landowners, we could perpetuate many wild species and, to some extent, even increase populations of others if we use foresight. Piles of fallen trees and underbrush need not be removed or burned, but could be effectively used as food, cover, and nesting sites for many species of birds and mammals.

Private landowners are not the only ones who can benefit wildlife through creating brush piles. Utility companies who have numerous rights-of-way throughout the state continually clear and maintain such areas; these present opportunities to improve such sites for wildlife. Some of these companies clear brush under high voltage towers and pile it nearby. Thus wildlife species are afforded habitat which otherwise would be lost.

Brush piles come in many shapes and sizes. Some are only few feet wide and high while others are quite large. Some are purposely made, most are not. The homeowner who prunes his fruit trees and shrubs often creates brush piles unknowingly when discarding the foliage in the backyard. A farmer clears fields of unwanted trees, stumps and rocks, piling them at one end of the cultivated field; or clears a woodlot for more crop acreage, bulldozing debris into piles.

Stream channelization wreaks havoc with wildlife habitat, but among its byproducts are large piles of trees and

shrubs. Such piles, if left alone rather than cleared or burned, could do much in the way of restoring habitat for some of the species which are harmed by the initial process.

Brush piles, properly made, can provide food and shelter for a variety of species. They are best made by placing smaller brush over several large firm logs or rocks which provide support. The larger logs and rocks also keep the brush off the ground, slowing its decay. In a short time, vines of honey-suckle, blackberry and various other plants weave their way through and over the brush. The pile becomes protection, an impenetrable fortress for those creatures residing within.

The quality of a brush pile is determined by location as well as construction. Brush piles placed in the middle of a bare field or pasture are of little benefit to wildlife. On the other hand, brush piles located along fence rows, in field corners, or interspersed in forest openings or woodlots afford wildlife species needed cover and nesting sites in naturally frequented areas. Location of brush depends on the mobility of the species of birds or mammals which use them. Brush piles for quail, for example, should be within 200 feet of other escape cover and no more than a quarter-mile from water. Carefully located brush piles may provide needed nesting sites in turkey habitat. Preferred turkey nesting cover can be developed by piling brush or slash at the bases of trees or around logs. Brush piles placed in low ravines or gullies increase cottontail rabbit habitat and provide erosion control, as well.

Brush piles are used by many mammal species including rabbits, ground hogs and various kinds of mice. Rabbits use brush piles as escape cover, nesting

areas, and shelter during winter months. If you are in doubt about the value of brush piles to rabbits, just listen to a veteran rabbit hunter explain how his beagles ran that "darn" rabbit into a pile of brush, never to be seen again.

Quail will also use brush piles for shelter. In fact, after a snow fall, telltale signs of many other animals will be present around brush piles. Fox in search of mice, rabbits or quail will find it difficult to penetrate the fortress, searching the edges for an occassional meal.

While hunting from a large brush pile during the deer season in piedmont Virginia, I was amazed at the flurry of activity. I observed 15 white-throated sparrows, eight song sparrows, five cardinals, two Carolina wrens, two catbirds, a sharp-shinned hawk and several mice using the one pile of brush. Just imagine the enjoyment one could realize attracting such wild species to the back yard or wood lot.

The increased usage of land for crops, housing, and industrial sites places extreme pressure on wildlife species to find suitable habitat each year. Habitat improvement by landowners and conservation agencies and groups holds some hope for our wildlife populations. Not only does man hold the key for existing wildlife species, but for future populations as well. Everyone can improve on the various aspects of an animal's habitat (food, water and cover). Before you burn or haul brush away, remember the benefits this type of cover could provide, as well as the enjoyment of watching wild creatures use this "manufactured habitat" for years to come. □

"The quality of a brush pile is determined by location as well as construction. Brush piles placed in the middle of a bare field or pasture are of little benefit to wildlife."



Story & photos by Harry W. Murray

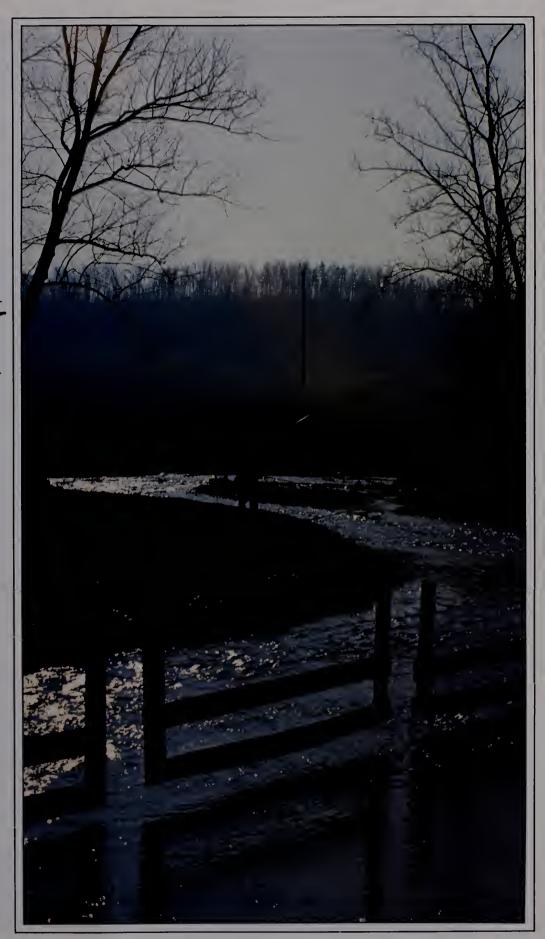
Winter Trout

SAVVY

Perhaps you've thought of stalking game for Christmas dinner; have you considered landing trout for Christmas breakfast? Winter trout fishing in Virginia is productive if you know how.

es, Virginia, you can fish successfully for trout during the winter. I've been doing it for years, ever since our legal season was extended until February 15 for all but the Shenandoah National Park. The primary difference between winter trout fishing and that of the warmer months is where we do it.

Most of our high mountain trout streams are now partly covered with ice. Even if they are not, the water temperatures at this elevation are so low the trout do not feed very heavily. Since they are cold-blooded, their metabolism is governed by the temperature of their environment and they simply do not need much food. This has nothing to do with its being mid-



he key to successful winter trout fishing is doing your homework. Find a stream that is warm enough (50°F) to encourage trout to feed. (Clockwise from top right) Dress warmly and sensibly, since hypothermia is a real threat, especially where water is a factor; the author trying his hand on a winter stream; winter brown trout; a typical winter troutfly, showing split shot and leader.

winter; rather it depends on the water temperature.

Realizing that you must locate the warmest water temperatures in trout streams to have any measure of success, you must do your homework before breaking out the tackle. With air temperatures well below freezing and snow on the ground, it is only logical to look for a subsurface water source a spring. I have monitored many of our springs throughout the winters tor years and find the water temperatures seldom get below 50 degrees Fahrenheit. This is warm enough to encourage trout to feed. Though they are willing to feed at this temperature, there is an important factor you must constantly keep in mind. As the stream flows farther and farther away from the springs, the cold air will have a chilling effect on the water and the feeding activity will decrease sharply.

There are few high mountain streams which have the type of spring input you should be looking for. Most of the streams which will provide what you need for winter trout fishing are located in the valley floor. These winter trout streams can be divided into two separate classes, depending on how the all-important springs contribute to their flow.

The most widely spread of our trout streams are those which gain their initial flow either in the Blue Ridge or the Alleghany Mountains. After their descent from the mountains they take on an entirely different character in the valley floor. They lose their high gradiant make-up and become more gentle and meandering. Here, too, some of









them pick up the inflowing springs which make winter trout fishing possible.

At first, locating these springs may seem as if it would be difficult. Take my word for it: you do not need a degree in geology to find them. When I am traveling through an unfamiliar area, I keep an eye out for old springhouses. Before refrigeration, people used these springhouses extensively to preserve perishable foods during the summer. The springs maintain approximately the same temperatures yearround. In the summer, 50 degrees seems cool, but in the winter, it's warm. A springhouse located close to one of these streams can often indicate a good trout fishing situation. It is certainly worth looking into, with the landowner's permission. In some cases these old springs may have become partly filled and the flow will be reduced to the point that they contribute little to the stream. In other cases even a spring producing a good volume of water will travel a great distance before reaching the trout stream. When this happens, the cold ground surface and air temperatures acting upon it chill it to the point that it has no warming effect upon the stream once it enters it. Even with these two factors in mind, a springhouse is well worth investigation.

A second giveaway for the type of spring to look for is the presence of aquatic vegetation during the winter. This is easy to spot. The bright green growing cress and elodea are highly visible in drab winter fields. If there is snow on the ground, these springs are even easier to see. Their warmth causes the snow around them to melt, quickly revealing their presence.

Some of the best winter trout fishing is found right where these springs enter the main streams. Not only do the springs warm the streams, but they have a direct and positive effect on the food level.

The springs are usually slightly alkaline which provides a good growing environment for aquatic insects. I have seen some of these springs so loaded with shrimp and cress bugs that when I pulled up a handful of cress, the moving insects in it made it look as if the cress were actually moving. The trout in the streams are highly aware of this food source. As the warming waters from the spring stimulate their need to feed, they are quick to take advantage of these insects.

The second kind of trout stream worthy of consideration during the winter is the true spring creek. This is a stream formed entirely by one or

more springs in close proximity. They have no constant stream input from any source other than the springs themselves, except an occasional wet weather stream which would contribute to their flow during high water periods. There are only a few of these in Virginia, but they possess all of the good features mentioned above for good winter trout fishing.

The general approach for winter trout fishing is slightly different than you would use at other times. Accurate water reading becomes extremely

For the angler who is willing to put on an extra layer of clothing and maybe even some wool gloves, winter trout fishing can be rewarding. The trout are there and they are willing to feed.

important. The trout are not distributed uniformly all over the streams, and once located they do not like to move great distances to take their food. These two factors mean accurate fly placement is essential to success.

Food, water temperature, stream flow and cover are the major factors which will determine exactly where trout will be located during the winter. If you have already located a spring, you have taken care of the first two of these.

Unfortunately, evaluating the stream flow and cover in order to pinpoint the trout's location is a little more difficult. The primary cover in these streams is overhead cover. A close second is side cover, such as a slightly cut bank which provides a measure of safety. The least desirable cover in these low gradient streams is the deep water area. Several years ago, I had a one-on-one contest for 18 months with a giant rainbow before I finally landed her. I never once found her in water over two feet deep, even though there was a very deep hole only 30 feet away from her home.

The areas on which to concentrate will have a strong current flow, although not necessarily the heaviest, in a particular pool or run. When you locate these strong currents in areas of overhead or good side cover, you are in action.

The springs provide the food and the warm water, the strong current brings the food to the trout and the overhead cover provides the home. All that remains for you to do is to outsmart him.

Fortunately, the same techniques and flies which worked successfully during the rest of the season will produce now. The possible exception is dry fly fishing which is limited to a very few specific hatches that occur on only a few streams all winter. The nymph and streamer fishing hold up well all winter but it is imperative that you take advantage of the accurate water reading in order to present flies to the selected feeding stations. This is no time to blindly cover the water, hoping to accidentally pick up a trout. This approach will more than likely get you skunked.

This need for accuracy does place some demands on tackle selection. The whole winter trout game demands control: control in fly placement, control of the fly once the cast is completed in order to drift it to the feeding station, and control in setting the hook on the strike. For the past several years, many of us have gone to ninefoot-long graphite fly rods which handle a number four line for this type of fishing. The extra length helps with the accuracy, and being delicate enough to load properly with a number four line helps achieve the sensitive control you need. Leaders which are nine feet long and tapered to 3x to 6x, depending on the size fly, do a good job.

Though flies used throughout the season will get some results during the winter, I prefer to duplicate the type of food found in and around these spring areas

The nymph fisherman should have: shrimp and cress bugs in sizes 14 to 18; dragon and damselfly nymphs in size 10; and wooly buggers in sizes eight to

The streamer fisherman will do well with Shenk's and Dave's sculpins, spuddler, crawfish and fur leeches, all in sizes eight and 10.

s mentioned, the day fly game during the winter is a little skimpy but there are some Baetis and P.Cleon hatches which are well matched with little olive drys in sizes 18 to 24.

For the angler who is willing to put on an extra layer of clothing and maybe even some wool gloves, winter trout fishing can be rewarding. The trout are there and they are willing to feed. All that is required of us is that we learn to play the game—by their rules.

Late Season D O V E

Doves in December? Try spending a day or two in a sunflower or corn field instead of a duck blind. You may be pleasantly surprised.



t was the kind of morning duck hunters live for. The temperature refused to rise above 20 degrees. The wind gusted out of the northeast at 25 knots. And the dawn came slowly, in somber shades of grey.

Only I wasn't in a duck blind. I was crouched in a briar patch beneath a sweet gum tree in a hedgerow bordering a sunflower field. Still, I half-expected a dawn flight of black ducks to come streaking in, flare upwind, and touch down in the sunflower stubble in front of me. "I'm dove hunting," I reminded myself. "I'm dove hunting."



(Above) Duck blinds aren't the only places that provide hunting action on a winter day; get permission to hunt a sunflower or corn field on a December morning and try your hand at doves. I'm used to hunting doves on hot September Saturdays, sweat streaking my camo T-shirt, my flesh marinated in Deep Woods Off. I'm not used to shivering on a dove shoot. I'm used to swatting mosquitoes and prodding the honey-suckle with a stick to flush the snakes before I make my blind there. So this business of late season, early morning dove hunts required some adjustment.

I was dimly aware that dawn hunts were allowed during the second season of 1981, but the fact never really registered until I was quail hunting in a soybean field adjacent to the sunflower patch one morning and discovered that the doves were flocking to the sunflowers by the hundreds. Suddenly the wisdom of the powers-that-be who set the season came shining through.

he farmer, Norman Mason, said he'd be happy for us to organize a shoot. The sunflowers had been a less than successful experiment. "I waited too late to cut them," he said. "The stalks had gotten too dry and brittle, and when the combine hit them they just broke off and fell on the ground."

True enough, seed pods were liberally scattered over the field, much to the delight of the late season doves, which had been finding the pickings slim in nearby corn fields.

So here I was at daybreak, kneeling cautiously among the briars, wishing the makers of my hunting pants had had the foresight (or should I say hindsight?) to sew briarproof nylon to the seat as well as the legs.

To my right was George Reiger and his three-year-old son Christopher, who was on his way to nursery school. The morning hunts, among other things, teach us to employ common sense and efficiency. George, for example, reasoned

14 VIRGINIA WILDLIFE





that if he could coax Christopher out of bed a little early this morning, he could be at the dove hunt by seven, shoot for an hour and a half, and have Christopher at the nursery school by nine

To my left was Gil McMillan, who works at the The Eastern Shore *News* with me. Like George, we are models of efficiency. Under my (partially) briarproof pants I wore my grey flannels, and under my old air force field jacket I had on a white shirt, club tie, and sport coat. Ditto for Gil. Since the office was only about a mile away, we could shoot until exactly 8:26, quickly remove the hunting jackets and pants, change from boots to loafers, and be at our desks by 8:30. We'd worry about cleaning the birds later.

"Mark!" shouted George. Five grey shadows twisted out of the dawn sky and disappeared to my left before I could even think about putting the gun up. "Mark!" I shouted to Gil.

The sky grew increasingly lighter and I could see hunters on the other side of the field. Now and then a shot would break the stillness. The large flocks I had seen previously should be in any time now, I figured, and when I turned to look behind me, across the soybean and toward the pine lot, I could see birds leaving their roosts. A flock of about a dozen were heading straight for me, so I just hugged the sweet gum tree and didn't move a muscle.

The birds were coming right at me, treetop high. It was just a matter of remaining perfectly still until they got closer, closer. . I stepped from the gum tree when the birds were about 30 yards out and they flared to my right. I fired through the branches and one folded, spiraling downward into the hedgerow. As I retrieved the bird I heard more shots from around the field as the flock circled.

(Above left and photo on following page) The author and his companions dressed in coat and tie under their hunting clothes so they could squeeze in an early morning hunt before work and avoid going home before heading for the office. When you aren't on that kind of schedule, however, taking your dog along is a good way to ensure that all downed birds are retrieved. (Above right) No matter when you hunt doves—September or December—safety demands that you be aware of where other hunters in your field have taken their stands.

DECEMBER 1983 15



ne for one, I said as I returned to my gum tree. In the net half-hour the shooting was unbelievable. Flights of 10 to 20 birds were constantly circling the field, willing to take a risk to get to those sunflower seeds. I shot eight times in about 10 minutes and had six birds, and I was getting cocky. It was one of these rare occasions when the shotgun seems to swing perfectly, the lead is precise, and the birds drop automatically. With each dove that fell, I would saunter out from under my gum tree, relishing the moment, and casually pick up the bird. "Right, guys, this is the way I do it all the time."

But among the lessons dove shooting teaches us, humility is high on the list. My deadly accuracy and sweet swing suddenly drifted away on the morning breeze. Ten shots, zero birds. Thankfully, it was time to go to work.

Gil and I did our quick change number, George and Christopher were on their way to nursery school, and one by one the hunters headed for their cars, leaving the doves to spend the remainder of the day feasting on the sunflower seeds.

Late season dove shooting is a different ball game, but the rules are still the same. You might be dressed in long johns instead of T-shirts, but, as they say, you've got to hit the bird before you can put it on the table. Doves have the remarkable ability to humiliate, embarrass, and blow your confidence to smithereens. And they do it more maliciously in the late season. They know your shotgun range to the last inch, and they'll fly just beyond it. They know how to spot hunters along the edge of the field, and they can thread the needle between shooters perfectly. And after the fall season, the survivors have honed their flying skills to a cutting edge. If you think September dove shoots are challenging, wait until you try them in December. \Box

Late dove season, 1983: December 19-31; hunting permitted from one-half hour before sunrise until sunset each day. Bag limit: 12 per day, 24 in possession.

A photo essay by Bill Portlock

Snowscapes



A stream winds its way through a snowy woodland in Grayson County.



Whitetop Mountain blanketed in snow.

inter isn't all bluster and bite, nor trees bending in the wind, nor leaves whipping 'round helplessly in whirlpools above the frozen ground. Winter has another, quieter dimen-

sion. It's still, almost silent, mysterious.
Footsteps are muffled in a thick
blanket of snow; leafless trees are
encased in a glistening coat of ice, or

their skeletal silhouettes softened with a

dusting of snow.

Winter transforms the familiar things into new sights and magical shapes. The drab, the everyday, the commonplace suddenly seem fresh, picturesque. Remember gazing at clouds, letting your imagination transform the shape? You can do it with snowscapes, too.



Although the view is from the Blue Ridge Parkway, the Peaks of Otter are framed in a veil of ice that has a mysteriously reddish cast.



The origin of these "sparklers" would be elusive to anyone but the photographer: he reveals that they're ice patterns on a car mirror.



Tri-lobed cinquefoil adorned with frost on Whitetop Mountain.



Winter-bared trees encased in ice on Whitetop Mountain.

t no time is the transformation more dramatic than at night, which somehow doesn't seem like night at all:

The moon on the breast of the newfallen snow

Gave a lustre of midday to objects below.*

In Virginia, snow and ice are not the frequent visitors that they are to less temperate climes. . .all the more reason to sieze the opportunity to savor those times when winter transforms a barren winter countryside into a beautiful snowscape, and we have the opportunity to view our world through new eyes. That is what Bill Portlock has done here, through a camera lens. Share his vision.—SRB

^{*}Quotation from "A Visit From St. Nicholas," by Clement C. Moore

Field Notes_

Tagging Wood Ducks

by Fairfax Settle

ommission wildlife biologists, wildlife management area supervisors and several game wardens were busy during the four-day October "split" of the current duck hunting season collecting blood from wood ducks harvested by Virginia hunters. These blood collections are part of an on-going study being conducted by wildlife department personnel in each southeastern state from Virginia to Florida.

For the past six years, the southeastern states have been allowed by the U.S. Fish and Wildlife Service to increase the bag limit on wood ducks from two to four per day for any portion of the season that falls prior to October 15. Such liberalization in the bag limit was permitted based on data that indicated that the southern wood duck population was in excellent shape and could withstand significantly more hunting pressure. However, it was believed that the northern wood duck population should not be subjected to additional hunting pressure. The premise is that early seasons scheduled prior to migration utilize locally raised southern birds without adverse impact on northern populations.

A three-year trapping and banding program was conducted in Virginia, resulting in over 2,100 wood ducks being marked during the July-September pre-season period. Analysis of these and other banding data suggest that Virginia hunters are harvesting mostly local birds in October. However, banding operations are expensive and data slow in developing (only about 10 percent band recovery expected).

Wildlife researchers have developed a system of biological tagging utilizing wood duck blood parasites. Certain blood parasites are indigenous to the northeastern states because the specific insect vectors (black flies) which transmit the blood parasite are only found in northern latitudes.

The collection of one drop of blood from hunter-harvested wood ducks is all that is needed. The drop of blood is placed on a glass microscope slide and spread extremely thinly. Corresponding data such as date, location of the harvest, and sex and age of the bird are recorded on each slide. The slides can be quickly made by field personnel, then "read" in the lab by parasitologists as time permits. Every bird handled in this manner provides useful information about the duck's origin as it relates to northern and southern populations.

Such a procedure provides a large sample of usable birds at reasonable cost as compared to waiting for a similar size sample of leg-banded birds to be recovered and reported.

So it you were one of the Virginia duck hunters approached by game division wildlife biologists or technicians with a request to "give blood" last October, perhaps this explanation might broaden your understanding of the project. We will likely request your cooperation again in future seasons.



Over 76 percent of the wood duck harvest in Virginia occurs during the early season or "October split."

onard Lee F

Personalities

Marian Wooding

he lovely lady is a legend . . .a legend which had its beginning in 1947 when she came to Richmond purely for the purpose of visiting relatives. While in the Capital City she, on a whim, responded to an ad in a local paper pertaining to secretarial employment with the Virginia Commission of Game and Inland Fisheries.

Arriving at the Game Commission headquarters, then located at 7 North Second Street, she was given a dictation and typing test by none other than Chester F. Phelps, who at that time was chief of the Commission's game division. Marian remembers that test well and to this day she recalls how nervous she was. And the typewriter she was using was "somewhat erratic and it was impossible to keep the margins straight." Nevertheless she was hired on the spot and Marian began work as secretary to Chester Phelps in the game division on June 16, 1947.

In July of 1958, Mr. Phelps was appointed Executive Director of the Game Commission and Marian got a new boss in the game division, Richard H. Cross, Jr. She worked for him until he became Assistant Director in December 1978. The following month, January 1979, she became secretary for yet another game division chief, Jack Raybourne, a position that she currently holds with the organization.

Originally Marian came from Campbell County where she was born and raised in the village of Long Island. Her father was a rural mail carrier and the family lived on 37-acre farm at the edge of the village. In addition to her mother and father were three girls, Olivia, Edith and Marian. It fell to Marian's lot to help her father with the normal farm chores, especially gardening.

This early exposure to plants, animals and the soil has remained as a life-long interest with Marian. Examples of this are the many, many blue ribbons she has won at the Virginia State Fair for her entries in the flower

by Francis N. Satterlee



and plant competitions. She is especially proud of the blue ribbons won for her Joseph's Coat and Ornamental Pepper entries.

After Marian graduated from Gladys High School in Gladys, Virginia, she attended National Business College in Roanoke. She then accepted employment with the Trial Justice of Campbell County, working for that individual for seven years. It was during this period of her life that she took that memorable trip to Richmond which began her career with the Game Commission.

Marian has fond memories of the many people with whom she worked at the Commission. "Many of them are now retired and they were, as are my current co-workers, always a constant source of stimulation and enjoyment to me. It has continually given me great satisfaction to have been associated

with so many talented and dedicated people."

On the other side of the coin, those same individuals have been on the receiving end of Marian's hobbies. She is considered one of the best candy cooks around (especially fudge) and a good many people can attest to that as a fact. However, where she really shines is with her plants. She is constantly sharing the flowers which she raises at her home in Richmond, with her co-workers. In that way she has shared her life and talents, as a caring and compassionate person, in making the world around her a better place to live.

Growing Up Outdoors.

A Gift That Keeps on Giving

by Sarah Bartenstein

hristmas is coming, the geese are getting fat..."
But what about the birds in your back yard? Without your help, they won't be getting fat, or getting fed at all, if it's a hard winter.

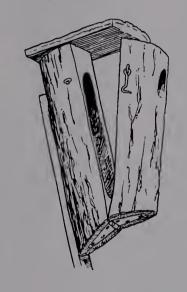
Food is scarce for birds this time of year. Anything you do to help will encourage the birds to stay in your yard to brighten up your winter days.

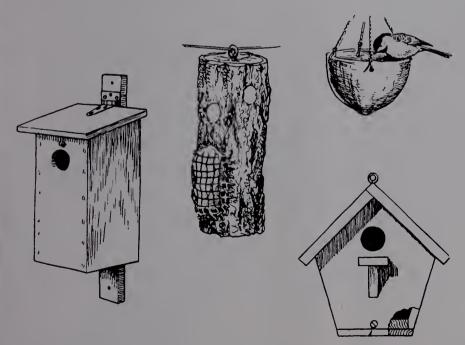
Why not give someone in your family a bird feeder as a Christmas gift? You'll be giving something to that person was well as to the birds!

You can find bird feeders in hardware stores, department stores and plant nurseries. They are available in a wide range of styles and prices.

Or you can make you own bird feeder from a kit. Kits are available in many of the same stores that have feeders and bird houses ready-made; you can order them from catalogs, too. Or if you or someone in your family is "handy" with tools, you can design your own. The Game Commission has a reprint that can help you called "Nesting Boxes, Feeding Stations, Bird

Houses, Wildlife Shelters and How to Build Them." You can get a copy of this reprint free by writing to us at this address: Education Division, Virginia Game Commission, Box 11104, Richmond, Virginia 23230-1104.





If you do not want to make anything that elaborate and just want to be sure that there is food for your bird neighbors, here are some simple bird feeders you can make:

Take a large pine cone and attach some sort of hanger to the top, such as a loop of string. Then, put peanut butter all over the cone and in the crevices. You can also mix in some seeds. Hang from a tree and watch the birds go for it.

Did you think that cranberry and popcorn strands were only for the Christmas tree? Try decorating a tree outdoors with these, and watch the birds have a feast.

Speaking of Christmas trees, don't throw yours away after Christmas—put it in your yard and "decorate" it with goodies for the birds. They—and other wildlife—will love this new "wildlife habitat."

Find an old log with some holes in it. Drill a hole in the top of the log and screw in an eye hook. Thread a strong piece of rope through this hook to use as a hanger. (You'll probably need some help from an adult to do this.) Then fill the holes in the log with suet (pronounced SOO-it); this is meat fat—your butcher or the meat department at your grocery store may be able to supply this. Then cover the suet with screen or hardware cloth as the illustration shows.

You'll also need help from an adult for this one. Take half a coconut shell and drill four holes near the top edge, equally distanced around the circumference of the coconut. (See illustration.) Then loop some string or rope through the holes and knot it as shown. Fill the shell with seeds and hang from a tree.

For more information on what birds like to eat, see "Thistle Seeds Al Fresco" in the January 1983 issue of Virginia Wildlife (page 6).

Merry Christmas to you and to the birds! □

Bird of the Month.

any owl species are more common than is generally thought. Nocturnal, secretive and well camouflaged, they escape detection from the casual observer. Even avid owl-seekers resort to tape recorded calls to rout them out.

The little saw-whet is a good example. Many dedicated birders have never seen the bird in the wild. Yet the raptor banding station at Cape May, New Jersey caught 109 saw-whets in the fall of 1981 and counted many others. This was an indication not only of their numbers, but also of a surprisingly strong migratory tendency.

Whether such pronounced migratory flights are normal is uncertain. Such movements may be sporadic, dependent upon food supply, weather condition or other factors. But that they occur at all is of exceptional interest for, until recently, the saw-whet was thought to be sedentary, or possibly an erratic wanderer. Audubon stated bluntly that the saw-whet does

not migrate.

The famous artist-naturalist had other mistaken notions about this owl. He wrote, for example, that he had found it nesting in Louisiana. That state is far removed from its present breeding range and there is only one record of the bird from the area (in the winter of 1889). Audubon also states in his bird biographies that he found a nest of this owl, with young, in Natchez, Mississippi, that he knew it to breed in Kentucky, and that it became scarce to the north.

He seems to have been wrong on all counts. For the present nesting range of the saw-whet extends across the northern tier of the eastern United States, north through central Canada, and, in the East, from Alaska down the high slopes of the Rockies. The mountains of West Virginia, near Cranberry Glades, mark the southern limits.

Possibly, the saw-whet breeds in Virginia as well. No nest has yet been

The Saw-Whet Owl

by John W. Taylor

found, but it has been noted during the summer months in Bath, Highland and Tazewell Counties. There are sightings in the Mt. Rogers area, as well. Its wintertime wanderings may take it anywhere within the state.

The scientific name for the saw-whet has undergone the usual changes given by taxonomists striving to sort out its relationships. The present generic name, *Aegolius*, is a Greek word used by Aristotle in reference to a small owl. The specific name, *acadicus*, is the name once given to what are now the Canadian provinces of Nova Scotia and New Brunswick. It was there that the species was first discovered.

Its common name has been in consistent use since Audubon's time. He preferred to call it the Acadian owl, but

wrote that in Massachusetts it was known as the saw-whet on account of its call. Since that period, the name saw-whet has been in general use, although some early writers used both terms.

The term derives from the supposed resemblance of the mating "song" of this owl to the sound made when sharpening a cross-cut saw. Audubon writes of having been deceived several times into thinking he was approaching someone in the woods actually sharpening a saw. Another writer likened the sound to the "sniffing noise made by a dog, testing the air."

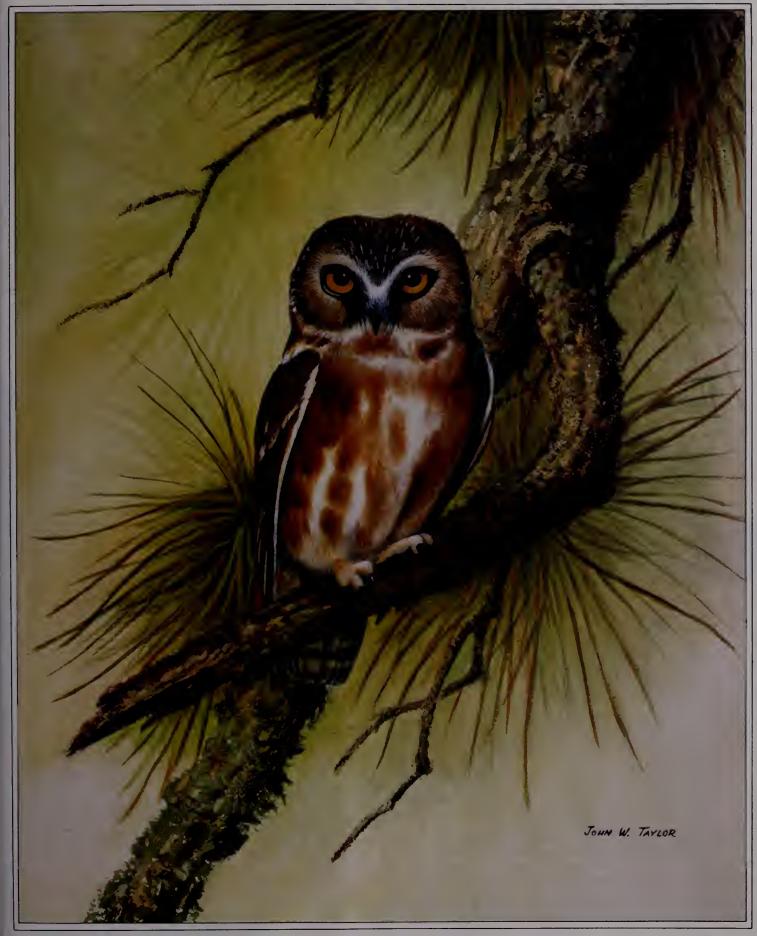
This particular call is one of many in the little owl's repertoire. A more frequent vocalization is a continuous series of short, mellow whistles. Some authors have described a variety of hissing and rasping notes.

The saw-whet is most vocal during February and March, just before nesting and egg-laying begin. The eggs are placed in a tree cavity, either a natural one or an old woodpecker excavation. They have also used nesting boxes erected for wood ducks and squirrels.

Young birds are quite different from their parents in appearance. The upper parts are a deep chocolate brown and there is a large white patch extending from the bill over the eyes.

Should one be fortunate enough to discover a saw-whet owl, there would be little difficulty in studying it closely. It is absurdly tame, showing little fear of man. With a little stealth, it can frequently be caught in the hand.

In our latitudes, the saw-whet can hardly be confused with any other owl. Smaller than the screech owl, it lacks the ear tufts of the larger birds, and has soft, cinnamon-brown streaking on the underparts. The boreal owl, similar in coloration, is larger and lives in the far north. Only once has it been reported from Virginia, near Skyline Drive in the winter of 1970, but the record lacks confirmation.



DECEMBER 1983

From Folk Art to Fine Art

Wildfowl carving is a folk art that reaches as far back in history as the ancient Eyptian culture; today, however, it is being raised to a fine art in the hands of such artists as Louis Kean, Jr.

he waterfowl decoy has a split personality. It is an essential piece of equipment for the hunter who tries to entice

ducks within range of his blind or boat. In the hands of Louis Kean, Ir. of Rich-

mond, the decoy has become an ultra-realistic image of a bird used to entice the collector who floats them on mantels where wildfowl never see them.

Since its ancient origin when Egyptians decoyed pintails on the River Nile, and Paleo-Indian culture used reeds and feathers, the making of decoys as we know it has remained a folk art.

Kean's method of wood sculpture is suprisingly graceful and all of his decoys are reassuringly objects of art. Each piece seems to embody the spirit of its subject. Today, museums and fine art galleries are beginning to exhibit what is being called wildfowl sculpting. Now that decoys have been accepted as a fine art, the defining of the approach to the art form is viewed from a different angle. Wildlife enthusiasts have a permanent representation of the birds they love for their office or home. . .some in flight, some grouped together, others carved in their natural habitat.

Louis Kean (pronounced "cane") is a decorative wood carver who has been carving full time since 1977, and very successfully. He turned professional on the advice of his mentor, Larry Hayden. Kean had just been awarded Best of Show in the amateur class at the annual Ward Brothers Foundation Competition in Salisbury, Maryland; Hayden told Kean, "You can stay in the amateur class and take ribbons and take ribbons,

but it won't do much good as far as your work is concerned."





For life-sized waterfowl, he won second place with a flying drake pintail in the Ward Brothers Foundation World Championship held last April in Ocean City, Maryland. Nearly a thousand carvers from 46 states, Canada, Mexico, England, Saudi Arabia and South Africa entered the show, submitting thousands of carvings. Kenneth Basile, Director of the Ward Foundation Museum in Salisbury, says Kean is "an excellent artist and major contributor" in the field of wildfowl decoy carvings. A single Kean carving can cost as much as \$8,000. The average price range is between \$1,000 and \$3,000, depending on the detail of the work.

ean, a graduate of Randolph-Macon College in Ashland, also earned a B.A. in fine art at Old Dominion University ('68) and taught in the Hampton and Newport News public high schools for six years. But his love has always been wildlife, and that he can do something so closely related to it is something special.

His shop is nestled in a wooded area near the James River, conveniently located behind the house where he lives with his wife, Cora. Displayed leaning against their living room wall is a simple grey-painted duck, crude in comparison to the work he does now. Cora notes that it is one of the first pieces her husband carved, and tells how he began at age 14 to make decoys. At that point, his were "working decoys," made to be hunted over. A friend of his father got him started by giving him some old discarded heads and blocks of wood to work with. Kean smiles and recalls, "He'd kick me in the seat of my pants when I goofed off and didn't do things right."

He was raised in a family who has hunted for generations on the 100-year-old home place, "Malvern," located on Route 3 near Mineral. As a boy he lived in Norfolk, where he remembers taking his first hunting trip. Giving way to nostaglia, he recalls when he was 12, his brother 14 and his father took them to the property they owned on Back Bay. "I was just fascinated and enthralled seeing all those decoys that were acting like ducks to a certain extent, and being lures to live birds, and we were out there actually shooting ducks over those wooden objects," said Kean.

Kean takes great pains at every stage of the creation of one of his carvings. As a result, the process takes months. On a bird like the green-winged teal drake, he carves individual feathers and adds them later. Generally it takes Kean about a month to make a full-bodied bird, from the initial drawing to the fully painted carving. However, Kean spent 60 hours a week, every week for three months working on the pintail. He uses only special carving knives and one power tool, a band saw.

Kean especially enjoys the painting stage. He builds up the paint with a series of thin coats to retain the quality of texture in the carving.

Can anyone carve? "If you have the interest and the drive to stay with it, yes!" says Kean.

"I start with the idea of what species I am going to make," he says.

To begin, Kean uses slides, photographs, books, his own observation, and any other reference available to make the carving as realistic as possible. Then he makes a top pattern and profile pattern to transfer wood into a simulation of a live bird.

He makes another pattern for the head, which he carves separately.

Kean carves the whole bird first using bass wood, a pop-

ular wood for carvers. Tupelo-gum or jelutong are also good. You can get four- or six-inch blocks to accommodate the total pattern. Kean likes to use blocks two inches thick, then laminates them to give the total height needed; length varies with the bird to be carved.

The next step is to trace the profile pattern and top pattern onto the block of wood. The top view should be matched to the profile (side view), so that when the outlines are cut with a band saw the result is a rough shape of the bird to be carved. The bird at that point will still be a fairly square-looking hunk of wood. Kean then uses a hatchet to chop the outside dimension of what will finally be a very delicate looking carving.

He then goes to surform rasps and several different carving knives. The use of knives will take the carving from a rough-looking block of wood to a delicate final carving the second several several several second several second several s

ing of a duck, quail, hawk, heron or songbird.

Lightness is the key in competition. The carving of decoys requires their reduction in weight so they can float, and they also must be balanced to swim exactly like the bird they represent, such as a duck, a goose or a swan. To control the floating behavior of the carving, Kean usually hollows it out in a controlled fashion, and takes care that the decoy does not become too light, which would cause it to balloon, that is, to sit in the water too high. Such floating can be controlled by adding lead ballast. The lead has to be placed in such a position that the bird floats level and side to side in a way characteristic of the species, tail to breast. For instance, puddle ducks in general swim and float with their tails higher out of the water than diving ducks, such as the redhead, canvasback or scaup.

After he balances the decoy, Kean applies the texture to simulate that of feathers. When he adds the paint, it gives the carving a more realistic appearance, and the result is more believable. He applies the texture with an electric wood burner. A thermostat controls the burner so that one can get varying degrees of depth for texture. Kean works on the body and the head separately and glues them together so that no seam is visible. After completion of the texturing, Kean seals the entire carving.

A good seal is a 1:1 mixture of lacquer and lacquer thinner. To prevent the loss of minute details in the carving, one must carefully control the thickness of the seal. In general, Kean uses acrylics in washes of paint instead of opaque, one-brush strokes. Washes consist of plenty of water, with small quantities of pigment; they spread thinly and evenly. This is especially important at the first coloring. If a bird has white feathers in one area and black feathers in another, one may be using black and white paint, but it doesn't always come out looking like the natural black and white of the bird feather. Therefore, one has to build up the colors with a series of thin coats to maintain the quality of texture in the carving.

he total carving takes many hours to be completed, but the painting requires more minute detail and is the most important process in completing the decoy.

The grace and beauty of one of these works of art bely the painstaking steps involved in creating it. That is what a person of great skill in any field does: creates an illusion, makes it look easy to produce something, no matter how spectacular. Kean is adept at this sort of magic. Of wood and skill he makes something that is inanimate look so much like something animate, that its realistic quality makes it almost surreal. Louis Kean is an artist.

Outdoor Notebook-

edited by Mel White

Recalled Ammo Could Be Dangerous

Remington Arms Company, Inc. has just announced the recall of defective 6mm Remington cartridges loaded with 80 grain hollow point "Power Lokt" and 80 grain pointed soft point bullets. When originally loaded in 1981 and 1982, these cartridges met Remington's quality standards. However, reports from customers indicate that a small quantity has shown abnormal pressure growth. In several cases, firearm damage has occurred and use of this ammunition could present a hazard to the shooter.

The 6mm Remington cartridges covered by this recall have the following markings on the packages: Product:

6mm Remington, 80 grain hollow point "Power lokt" or

6mm Remington, 80 grain pointed soft point Index Numbers:

R6MM2 or R6mm1 (located in lower right hand corner of end flaps)
Code Numbers:

Located on side of left end flap. If first letter is S, T or U, this product is subject to recall.

The company said it is informing wholesalers and dealers to withhold from sale all 6mm Remington 80 grain hollow point "Power lokt" and 80 grain pointed soft point ammunition with code numbers (inside the left end flap) with the first letters of S, T or U. Remington representatives will make arrangements for the return of these cartridges.

Consumers who have purchased 6mm Remington cartridges in boxes so marked should return them to Remington for prompt, free replacement. They should be sent via UPS transportation C.O.D. to: Remington Arms Co., Inc., Attention: G.T. Porter, Interstate Route 40 & Remington Road, Lonoke, Arkansas 72086.



Game Warden Honored

Officer Gary M. Bise, Virginia Game Warden in Henry County, was recently honored by the Martinsville Exchange Club. Robert N. Stone, the club's treasurer, presented Officer Bise with a first place award for his exhibit in the community services category in the Henry County Fair held September 5-10, 1983.

Virginia Setter is Champ!

Champion Beartown Barrister, a Ralston Purina pure-bred English setter owned by Woodrow Mullins, Jr. of Cedar Bluff, became Virginia's first National Shoot-To-Retrieve Double Champion by winning back-to-back first places in competitive trials at South Boston, Virginia in October.

The Bear, who first earned the coveted title of Champion on March 6 of this year, captured the fifth and sixth first-place wins to this outstanding career last weekend to become only the 20th Double Champion in the history of the National Shoot-To-Retrieve Field Trial Association. More than

3,500 trained dogs have competed across the country in field trials during the past 15 years.

The three-year-old English setter is sponsored by Purina brand Hi-Pro dog food and is a product of the breeding kennels of the Ralston Purina Gray Summit Research Farm.

"When the Bear won his championship certificate in March, it was something I was really proud of," said Mullins. "I didn't expect him to become a double champion on this weekend. My goal was to win the Virginia Region high point title and qualify for the Dog of the Year Trials. But he was outstanding. No dog had ever won backto-back first places in Vrrginia trials before."

To earn the title of champion, a dog must accumulate 18 career points in N.S.T.R.A. sanctioned trials, nine of which must come from first place wins. The remaining points can be earned from second or third place wins. A double champion must earn 36 career points, with 18 from first place finishes, a feat very few dogs in the country, and none in Virginia, had accomplished.

During his two and a half years of competition, the Bear won six first place wins, 10 second place finishes, and six thirds, giving him 44 points and the double championship with eight points to spare toward the truly rare triple champion status achieved by only three of those 3,500 competitors.

Winter Checklist For Your Outboard

Don't be caught on the first nice day of the new boating season with an engine needing some springtime attention. If you follow some simple storage and spring tune-up steps, your initial trip to the water next spring will be more enjoyable.

Here are some things a do-ityourselfer can do which are outlined in

the owner's manual.

Store you outboard upright over the winter. The fuel should be drained or the fuel tanks properly stablized with an additive if any gasoline is left in them.

Rust preventative oil should be used to lubricate and protect the internal parts. Water should be drained from the water pump.

The gearcase should be drained and refilled with the recommended

lubricant.

The fuel filter should be cleaned, and spark plugs removed, inspected, cleaned and properly re-gapped or replaced. You should also have the battery removed, stored (and periodically recharged) in a cool, dry place.

You're a step ahead of the game when it's boating time again. In the spring, simply re-connect the spark plug leads. Check the lower unit's lubrication. If you see a leak, see your dealer as the lower unit seals may need some attention.

Check the battery's water level, clean off the terminals, charge it and reconnect it.

And don't forget to check one of the motor's most important parts, the propeller. If the prop is too worn, have it reconditioned or replace it. Even a small "ding" or bend in just one blade can adversely affect the performance of the outboard and cause major vibrations that may damage the motor.

After you have cleaned and shined up the engine and cover there is one final spring check to perform, and this is done with the boat in the water.

Check the motor's operation while it idles for a few minutes. Look particularly at the water flow indicator to make sure the water pump and cooling systems are operating at peak efficiency.

Since you took the fuel filter apart, it's a wise move to check the entire fuel system for any signs of fuel leakage after the motor has been run awhile.

Then you should be ready for another season of on-the-water fun.

□

National Wildlife Says "Eagles Holding On"

The final results of the 1983 Midwinter Bald Eagle Survey, conducted by thousands of volunteers in all the lower 48 states, except California and Maine, add support to the widely held belief that the decline of the bald eagle has stopped. Brian Millsap, coordinator of the survey for the National Wildlife Federation, reports that nearly 12,000 eagles were counted in the 46 states, about the same number found in these states during the last year's survey. When the bald eagle was declared an endangered species by the Secretary of the Interior in 1966, eagle populations were estimated to be half what they were before the first use of DDT, in the late 1940s. According to Millsap, the survey also found that unusually mild weather over much of the eastern half of the country during the January count caused eagles to spend the winter months farther north than they usually do. The annual survey, considered the most complete eagle count available, is conducted each winter because the number of bald eagles in the lower 48 states is at a peak during this season, says Millsap. The 11-yearold ban on DDT in the United States is the one action most responsible for curtailing the plight of the eagle, says Millsap. The pesticide, which had entered the eagle's food chain from DDT-contaminated fish, was causing

eagles to lay eggs with shells so thin that they often were crushed under the weight of a sitting eagle. "Today, the biggest threat facing the bald eagle is habitat loss," says Millsap. "The National Wildlife survey should provide eagle experts with data on where the birds live in the winter and the habitat they need to survive." The states with the 10 largest wintering eagle population, according to the 1983 survey, are: Washington (1,158), Utah (1,042), Missouri (908), Florida (684), Idaho (644), Arkansas (527), Oklahoma (516), Montana (495), South Dakota (476) and Colorado (468).

National Forests In Your Future

by Jesse C. Thompson, Jr.

If you are among the thousands of Virginians who enjoy outdoor activities in our National Forests, you should know that a new planning process is presently underway that will affect your future participation. By October 1985, all National Forests including the Jefferson and George Washington in Virginia must have new Land and Resource Management Plans.

The broad framework for policy and management resides in several federal laws and their amendments. Not least among important pieces of legislation are the Multiple-Use Sustained-Yield Act of 1960 (Public Law 86-517) and the National Forest Management Act of 1976 (Public Law 94-588). The former law states "the National Forests are established and shall be administered for outdoor recreation, range, timber, watershed, and wildlife and fish purposes." Although Congress gave no indication about the value of the various resources specified in this law, it did state the objective of "the management of all the various renewable surface resources of the National Forest so that they are utilized in the combination that best meets the needs of the American people." Furthermore, the law states the need for "harmonious and coordinated management of the

various resources, each with the other, without impairment of the productivity of the land."

The greatest controversy in National Forest managment involves timber and, in particular, how timber management affects the other multiple uses such as recreation, wildlife, and fish. Many believe that past management has resulted in a major emphasis on timber harvest. It will be difficult to manage for recreation, wildlife and fish when extensive clearcutting is the primary managing technique. Failure to recognize the complexity of forest management will produce solutions that are apt to be severely damaging to the Forests.

Twin Citizen Task Forces have now emerged to monitor the development of the Land and Resource Management plans of the Jefferson and George Washington National Forests. We hope these Task Forces will play a role in the evolution of the management plans. If you would like to help, please write to me in care of Roanoke College, Salem, Virginia 24153. Your participation could make a difference in the National Forest of your future.

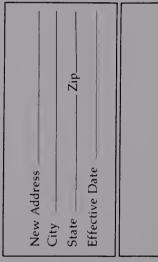
Bay Cleanup Will Cost A Billion

It will cost \$1 billion and take 10 vears to clean up the famous Chesapeake Bay. That's the conclusion of the Environmental Protection Agency (EPA) which late last month released a \$30 million study on what it will take to solve the pollution problems in the country's largest estuary. Laden with phosphorus, nitrogen and toxic contaminants (including lead, mercury, copper, and cadmium), the Bay's water quality continues to deteriorate. In some stretches during summer, pollutants have choked off oxygen supplies for stripers, shad, alewives, bluefish and other sport fish. National Wildlife Federation and the EPA, as well as state officials in the region, are becoming increasingly concerned about cleaning up these waters. A conference called by the governors of Pennsylvania, Maryland and Virginia is planned for December 7-9 to discuss alternatives. □

Subscriber Service

If you're moving, please don't forget to let Virginia Wildlife know. Use the form below: attach a recent label from Virginia Wildlife, and fill in your new address in the blanks provided. Please allow six to eight weeks for a change of address to be reflected on your Virginia Wildlife label.

If you have questions about this, or any question concerning your *Virginia Wildlife* subscription, write to us in care of Data Processing, Virginia Game Commission, P.O. Box 11104, Richmond, Virginia 23230-1104, or call 804/257-1449.



Attach most recent address label here.



Subscribe Now!

You can be sure to IRGINIA catch more on the pages of WILDLIFE

Catch the big savings on the per-copy price of *Virginia Wildlife* when you buy it "by the dozen." You'll get a 65% savings on the best how-to, where-to, and when-to outdoor magazine Virginia has to offer! Mail the form below to *Virginia Wildlife*, P.O. Box 11104, Richmond, Virginia 23230, or give it to your game warden.

......

YeS, I want to save up to 65% over the newsstand price of Virginia Wildlife! Send me □ one year of \$5.00 □ three years for \$12.50				
This is a □ new subscription	□ renewal	☐ gift subscription		
Name				
Address				
City	State	Zip		
Please allow six to eight weeks for delivery. Credit Warden No				

-Hypothermia-

COLD BLOODED KILLER

by William Forgey and Jim Meuninck ot all outdoorsmen (and women) hang up their flyrods, backpacks, cameras or binoculars when Old Man Winter knocks at the door. And while Virginia does not traditionally have bitterly cold winters, hypothermia is always a threat. Dampness and wind—no strangers to our area—are the most devasting factors to be considered, even more so than temperature. In fact, it is possible to die of hypothermia in temperatures far above freezing. Most hypothermia deaths occur in the 30- to 50- degree range.

Hypothermia occurs when a person's body temperature drops through exposure to wind, cold and dampness. Lower it enough, and death will result! Proper insulation is the most important aspect of protection. By far the most valuable insulation from dampness is wool. Wool loses only 40 to 60 percent of its insulating ability when wet. Protect the head and trunk with wool. Wool shirts have little bulk and can be invaluable additions to a day pack. Polarguard and Holofill II garments and sleeping bags have also proven to be valuable additions to the wilderness equipment. Thinsulate and polypropylene liners appear very promising. Proper nutrition and avoidance of exhaustion are additional measures which can help prevent hypothermia.

The first response the body has to a hypothermia condition is constriction of the blood vessels in the skin, thus decreasing the flow of blood to the surface—which, in effect, lowers surface temperature, but preserves the core temperature. If this heat loss continues, the core temperature will begin to fall below 99 degrees. Intense shivering followed by sluggish thinking and speech difficulty portend advancing

hypothermia.

Treatment is the prevention of any further heat loss and the *careful* addition of heat to rewarm the victim. The ideal treatment would be to replace the core heat from the inside out, as subjecting the individual to an outside source of heat would cause the surface blood vessels to open and promote circulation to the surface. The initial effect this would have is to dump a load of very cold blood into the already over-cool core. The temperature of blood in the hands and feet may drop 40 to 50 degrees below that of the body's inner core.

It is essential to remove the victim from wind and place him/her in the best shelter available. Replace wet clothing with dry clothing if possible. Insulate the victim and place him/her in a sleeping bag with a stripped rescuer. A hypothermia victim alone in a well insulated sleeping bag will simply stay cold. If the victim is conscious, give him or her warm drinks and candy or sweetened foods, if available. If no sleeping bag or fire is available, have the party huddle together. Avoid the use of alcohol—this may cause the blood vessels to dilate, thus releasing cold surface blood to the core.

Prevention is the key to avoiding death from hypothermia. Remember the following points to prevent

hypothermia:

 Be aware of how insidious wet, wind and cold can be—avoid unnecessary exposure.

- Dress for warmth—prepare against wet and wind, remembering wool is your best friend.
- Have adequate nutrition.
- Carry emergency bivouac gear, such as a tube tent or tarp.
- Make camp early, before coordination and judgement are decreased—know when to quit the struggle against the elements and prepare camp.
- Keep active using isometric contractions of various muscle groups to generate heat until desired warmth is produced. □



-Non-Game Update

The American Kestrel

by Jeffrey M. Curtis

hat bird we see so often perched on telephone lines along Virginia's roadways is the kestrel. The kestrel's Latin name, Falco sparverius, translates into another of the kestrel's common names, "sparrow hawk." This is appropriate since this small bird is no larger than a sparrow.

We can see the sparrow hawk yearround in the Old Dominion. They are profuse during fall and winter when northern birds migrate here.

The kestrel has proven itself an adaptable wildlife species and is often found in towns and cities. It prefers open or at least partially open country with agricultural fields, marshlands and waste areas. Still, cities and towns offer food and nesting sites in such areas as abandoned gravel pits, landfills, urban parks and waste areas.

The sparrow hawk is an opportunistic nester: a breeding pair will construct a nest wherever the chance exists—cliffs, rock outcroppings, fenceposts, utility poles and trees are all candidates. Natural cavities in snags and abandoned woodpecker holes are popular. Artificial nesting sites such as boxes and tubs are also acceptable to the kestrel, as are outbuildings and eaves of secluded buildings.

The sparrow hawk is omnimvorous: it feeds on any and all material that is fit to eat. Except carrion, the bird will use whatever animal matter is available in a given area in a certain time of year. This adaptability is responsible for the frequent occurence of these birds in urban areas where the availability of sparrows and starlings provides a convenient food source.

The list of foods is extensive. It includes grasshoppers, crickets, mantids, small mammals, small birds, frogs and snakes.

Because of their inability to tear their meat into edible portions, the parents will present the pieces to the hungry youngsters. As the juvenile birds mature they begin to feed them-



selves. This eagerness to sustain themselves, even if prompted by hunger, will soon lead to the birds' ability to fend for themselves.

Food hunts are conducted from high, isolated perches. Often a kestrel is seen on a roadside, perched on a telephone line or hovering in mid-air scanning the field for grasshoppers and mice. It will also use branches and the roofs of outbuildings. Most of the food is caught on the ground, where this small bird can put its weight to best advantage.

Breeding and incubation occur between early February and August. This period offers improving weather and available foods for the parents.

The breeding pair will produce one clutch per year of up to four eggs per clutch. These eggs hatch in about 28 to 30 days. Most of the incubation during this time is done by the female.

The birds reach sexual maturity at one year. They pair off, mate, rear their young and soon reach the end of their own life span of one and a half years.

The home range of an adult sparrow hawk is about 960 acres. This is the area where it hunts, maintains territorial defense and seeks a mate.

The home range drops to 370 acres once the kestrel finds a mate. This is the breeding range. Food searches will be limited to this smaller area. The birds will also defend the area much more vigorously to discourage unpaired birds from entering.

During the winter months, many Virginia birds will remain here in their native territory. Because of our milder winters, the kestrels don't need to migrate farther south unless the weather prevents them from finding food. Most migrating is done by males. The greatest migration on record is 2.600 miles.

As with most wildlife, intensive agriculture, clean farming and the indiscriminate use of pesticides will all but erase the sparrow hawk from our countryside. The key to preserving this raptor is to preserve its habitat: wetlands and over mature woods, and wellmaintained edges and waste areas.

Experience all the color and adventure Virginia's outdoors offers.

Subscribe to

WIRGINIA
WILDLIFE

When it comes to outdoor experiences—fishing, hunting, birdwatching, camping, boating—Virginia has a lot to offer. And when it comes to wildlife, Virginia has an amazing variety.

But when it comes to full-color magazines about wildlife and the outdoors, Virginia has only one choice. Virginia Wildlife.

And you can have Virginia Widlife delivered each month for a year for only five dollars. (Or three years for just \$12.50.) Each issue is packed with 36 pages of entertainment, information, lore, beauty, and just plain fun.

So what are you waiting for? Fill out the attached coupon, put it in this envelope with a check, slip it into the nearest mailbox (we've already taken care of the postage), then look forward to a wild experience.

BUSINESS REPLY MAIL FIRST CLASS PERMIT NO. 529 RICHMOND, VA.

POSTAGE WILL BE PAID BY ADDRESSEE

VIRGINIA

Richmond, Virginia 23230-1104

P.O. Box 11104

Commission of Game & Inland Fisheries

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES



Index to Virginia Wildlife 1983, Volume XLIV, Numbers 1-12

BIOGRAPHY

Personalities,	
Chitwood, Sgt. Lannie, Satterlee Nov., p. 22 Duncan, Robert W., Satterlee Feb., p.21 Gillam, Harry, Bartenstein Jan., p. 23 McHugh, Jim, Satterlee March, p. 22 New Commissioners: Moon, Fahnestock & Trice, Satterlee Aug., p. 22 Taylor, Charles, R., Satterlee June, p. 23 Wooding, Marian, Satterlee Dec., p. 22	Late Season Dove, Badger
BIRDS	Birds of Pray, Randolph Oct., p. 7
On the Comeback Trail, Byrd	Don't Shoot, I'm a Turkey Hunter, Shaffer May, p. 4 Field Notes: Beagles-1, The System-0, Miller Aug., p. 24
Black Duck, Knuth Nov., p. 32 Eastern Bluebird, Taylor Oct. p. 34 Eastern Wood PeeWee, Knuth Aug., p. 34 Flash of Red: The Cardinal, Knuth Jan., p. 34 Killdeer, Knuth May, p. 34 Red-Eyed Vireo, Knuth June, p. 34 Saw-Whet Owl, Taylor Dec., p. 24 Scaups, Knuth Feb., p.34 Whistling Swans, Knuth March, p. 34 Non-Game Update: March, p. 34	Blaze Orange, Heslep Oct., p. 28 "Bravol", Foster May, p. 24 Get Involved, Marshall Nov., p. 21 Spotlighting: A New Twist On An Old Problem, Chitwood June, p. 21 They're Not Alone, "901" Feb., p. 23 Violent Encounter, Heslep Jan., p. 24 Game Law Digest 1983-84 Oct., p. 32 Make Safety Your Target, Foster Sept., p.6
Barred Owl, Curtis Oct., p. 24	
Kestrel, CurtisDec., p. 34Pileated Woodpecker, GilleyNov., p. 23Turkey Vulture, CurtisMarch, p. 23White-Faced Clown (Nuthatch), GilleyMay, p. 22	Kerr Reservoir: Unexplored Territory, Fulton Oct. p. 14 Nathan Cobb's Island, Badger Oct., p. 17 Sportsman's River: The Blackwater, Heerwald Nov., p. 10 The Trail, Potter Aug., p. 16
BOATING AND BOATING SAFETY	MAMMALS
Canoeing a Legend: The Fabled James, Heerwald June, p. 15 Healthy Respect, Agnew May, p. 32 Ounce of Prevention, Kerrick Aug., p. 6 Requiem for a Johnboat, Elkins Nov., p. 25 Subtle Thrills of Flatwater Canoeing, Badger July, p. 17 Watch Out, Fish! Sledd April, p. 6 ECOLOGY AND NATURAL HISTORY Going To The River, Williams July, p. 32	All About Antlers Nov., p. 32 Bears of Shenandoah, Williamson Feb., p. 14 Beavers (Growning Up Outdoors), Evans May, p. 21 Little Brown Bat (Non-Game Update), Curtis Aug., p. 23 Shrews, Gillam Jan., p. 16 White-Footed Deer Mouse, Curtis Jan., p. 4 Woodchuck, Ahrens Feb., p. 32
Virginia's Wildlife Legacy: A New World Journal, Alison Nov., p. 14	Best Remedy, Harris Aug., p. 9
Why Does the Land Change? (Growing Up Outdoors), Artes	Bountiful Chesapeake: Too Rich For Its Own Good, Flanigan & Portlock
Protecting a Resource, Robb	Coping With the Gypsy Moth, Artman
ABC's of Fishing, Johnson Chesapeake Blue Crab, Oesterling Closed Wednesdays (flounder), Badger Crickets for Bream, Knuth Dazzling Darter, Bugas Dog Day Cats, Shuber First Saturday in April (trout), Murray Fishing, Northern Style, Knuth March, p. 20 Fly Fishing Tackle: A Primer, Murray April, p. 3	Hunting For The Perfect Gift, Hensley Dec., p. 4 In Defense of August, Shaffer Aug., p. 14 Killdeer and the Classroom (Growing Up Outdoors), Satterlee Jan., p. 25 March Winds (Growing Up Outdoors), Evans March, p. 24 Origins Unknown July, p. 22 Wildlife's Winter Haven, Cooley Feb., p. 4 Unique Perspective, Knuth Nov., p. 17
Fruits of the Sea, Flick July, p. 6 Gold Rush at Walker's Dam (herring), Randolph April, p. 26 Herring By Any Other Name, White April, p. 29 Lure of Wood and Steel, Randolph April, p. 9	Dress For The Outdoor Party, Artes
Mapping Citation Waters, Gooch	Carvings of Harold Evansha: Wildlife in Wood March, p. 32
Morris Creek Crappies, Knuth Return of the Grey Trout, Williams July, p. 14 Roanoke River Stripers, Almy April, p. 31 Sharpen Up On Carp, Perry May, p. 10 Smallmouth Bass, Fall Style, Murray Oct., p. 25 Touring Virginia's Fee Fishing Areas, Wollitz June, p. 4 What's In A Name? (bream), Shuber April, p. 24 Winter Trout Savvy, Murray Dec., p. 9 HOW-TO Backyard Bazaar, Cooley Nov., p. 7	ChesapeakeJuly, p. 24Cicada, PassaroAug., p. 25Managing Your Wildlife ResourcesMay, p. 25Native Newcomers, PotterJune, p. 25Paintings of Bill BolinSept., p. 17Snowscapes, PortlockDec., p. 17Spring Emerging, MitchellMarch, p. 17Spring's Reward, MorrisMay, p. 18Your Warden At WorkFeb., p. 17
Bats in Your Belfry, White March, p. 4	PLANTS
Gift That Keeps On Giving (Growing Up Outdoors—bird feeders), Bartenstein Dec., p. 23 Home Sweet Home (purple martin houses), Gilley March, p. 7 How To Clean A Firearm, Heslep Sept., p. 35	Apples—A Fall Favorite (Growing Up Outdoors), Bartenstein Oct., p. 22 Kudzu: The Plant You Love To Hate, Weekes Aug., p. 32 Wild Delicacy Overlooked, Sculley June., p. 32 REPTILES AND AMPHIBIANS
Thistle Seeds Al Fresco, Wyckoff	Black Rat Snake (Non-Game Update), Gilley
And Where Was My Bow? Almy Nov., p. 4	WILDLIFE MANAGEMENT
At First Light, Gooch June, p. 10 Cry of the Hounds, Taylor Sept., p. 24 Cut the Cost of Duck Hunting, Bartenslein Sept., p. 32 Elusive Mourning Dove, Cochran Sept., p. 13 Final Crystal Moment, Almy Sept., p. 28 Freelance For Ducks, Shank Oct., p. 5	Information, Please, Giles Jan., p. 32 Money Well Spent, Randolph Feb., p. 24 Non-Game Research: The Next Phase, Taylor & Byrd Jan., p. 26 Tagging Wood Ducks (Field Notes), Settle Dec., p. 21 What Is Wildlife Management? (Growing Up Outdoors), Evans June, p. 24



Seasons Greetings from VIRGINIA WILDLIFE